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PAPILLOMA OF THE LARYNX IN ADULTS.¹

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ALTHOUGH papilloma is the most common, forming as it does from sixty to seventy per cent., of all laryngeal growths, cases are by no means frequently met with even in a large throat clinic like that at the Massachusetts General Hospital. It therefore seemed to me that a report of the five following cases and their discussion in the light of the accepted views on this subject, might be of interest to this Society, especially since some of them present points of more than ordinary interest.

The chief interest in the first four which I shall report lies in the fact that they have been for so long a time under observation. For the first two I am indebted entirely to Dr. F. H. Hooper's case-book at the hospital, in which he kept a careful record of those cases which especially interested him.

The following are brief reports of the cases, giving, as far as possible, only the important points:

CASE I. Ellen O. D., age twenty-five, single, domestic. First seen by Dr. Hooper on February 20, 1883. Always healthy. Cannot state positively how long she has been hoarse, but certainly for two or three years. No cough; slight dyspnoea. Patient very short and stout. Examination shows a pediculated polypus in the middle of left vocal band, size of a whortleberry, smooth surface, dark red color.

¹ Read before the Boston Society for Medical Improvement, February 13, 1893.

An immediate improvement of the voice followed the removal of the greater portion of the growth on March 28th. Dr. Whitney's microscopic examination showed the growth to be true papilloma. On May 12th the voice was natural; the left cord was almost like the right. A year later there was still some thickening of the left cord, although the voice was excellent. The patient was last seen in October, 1888. There was no recurrence of the growth.

CASE II. Maggie D., age fourteen when first seen by Dr. Hooper in October, 1884. Family history good. Patient had scarlet fever in 1875; measles in 1878, followed by rheumatic fever and slight chorea; and in 1882 German measles. In June, 1884, her present throat trouble began. Hoarseness has grown gradually worse. For the past month has been able to speak only in a low whisper. Heart and lungs normal. Has shortness of breath. Examination of the larynx shows a large papillomatous mass situated in the anterior angle and on the right side of the larynx. It fills the right ventricular sinus and completely covers up the right cord. The left cord is only seen in the posterior third. The mass protrudes into the laryngeal cavity and almost fills it. It is smooth, pinkish in color, and very soft looking.

This growth was thoroughly removed and several months later a small regrowth from the right ventricle. The patient was last seen in March, 1891, at which time there was no recurrence.

CASE III. October, 1889. Minnie H., age sixteen. Had diphtheria when eight years of age. Began to grow hoarse in April, 1889; noticed it first in singing. Has grown steadily worse since. Practically aphonic at present. Both vocal cords are the seat of soft papillomatous growths, also ventricular sinuses. Later small papillomatous masses were discovered on base of

tongue. During the next three months portions of the laryngeal growth were removed at different times by Dr. Knight, Dr. Hooper and myself. In spite of constant attention, however, it continued to recur. Dr. Whitney's examination showed the growth to be true papilloma. A record made by Dr. Hooper, December 4, 1890, states:

"Has been operated on several times by Dr. F. C. Cobb and others, last time being in April, 1890. Voice was afterwards perfectly clear. Began to grow hoarse again last month. This hoarseness has increased. Examination shows a small nodule under anterior portion of right vocal cord. All other portions of larynx healthy. Warty growths in mouth are gone." This patient was seen several times after this by Dr. Cobb, and the small recurrence above mentioned was thoroughly removed. In January, 1893 (two years after last operation), the cords were perfectly clear and the larynx normal in every way.

CASE IV. November 13, 1889. Mrs. A. M. B., age thirty-eight. This patient was first seen by Dr. Knight in 1878; and I am indebted to his notes of the case taken at that time for the following history:

The patient has always enjoyed good health with the exception of colds.

Had measles at the age of seven, with sore throat and loss of voice for three months. Had diphtheria two years ago, and has had trouble with voice and throat ever since. Has been gradually growing worse. Breathes and swallows with difficulty.

No evidence of lung trouble. Growth as in diagram (see Fig. I).



FIG. I.

(Copied from Dr. Knight's records.)

This growth was thoroughly removed by Dr. Knight, and the voice was good from that time until a year ago (1888). General health has been good. Is quite hoarse at present. Examination shows soft papillomatous growths on anterior third of each vocal cord, also a little at anterior angle. The patient's throat was exceedingly irritable and required considerable drilling before I was able on November 30th to remove a large

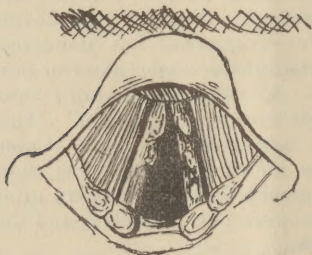


FIG. II.

part of the growth on the right cord. On December 5th I removed most of the growth on the left cord and part of the remainder on the right. The patient was seen several times after this and the growth thoroughly removed. When last seen, except for a slight

injection of the vocal cords the larynx was normal.

February 8, 1893, the patient came to see me to-day, at my request. She had scarlet-fever last April. For past five months the voice has been husky, but it was not perfectly clear before the fever. Examination shows growth as in Fig. II.

CASE V. Mrs. F. E. W., age thirty-six, came to see me first on June 7, 1892. Mother died of cancer at the age of forty-one. After a severe cold when three years old the patient lost her voice for three years. It then began to improve, but never became clear. At the age of eighteen, after an attack of whooping-cough, the voice gradually grew worse again. Nine years ago, and at intervals of several months since then, she has coughed up a little blood. This has occurred several times during the past three weeks,

and once there came half a cupful of bright blood. During the past year the patient has occasionally coughed up pieces of the growth. The examination of the chest was negative. The patient is well nourished but rather pale. Apart from the throat trouble the health is good. The voice is a hoarse whisper, evidently produced with considerable effort; and the dyspnœa is considerable. Examination of the larynx shows a large papillomatous mass, apparently rising from the right vocal cord, the ventricle and the ventricular band (later the growth was found to arise only from the right cord). The posterior portion of it flaps up and down between the cords on respiration.

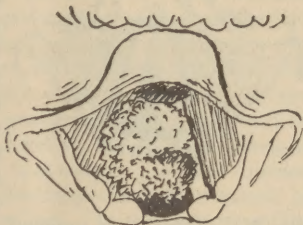


FIG. III.

Fig. III will give some idea of the size and appearance of the growth at this time. The pharynx and larynx were sprayed with a four-per-cent. solution of cocaine at each sitting, and the growth was removed with Schrötter's tube forceps. Six sittings in a period of nine days were required to remove the whole growth. Hæmorrhage was never very troublesome although it was rather more at the last two sittings than at first. On June 20th there remained considerable thickening of the right cord but no growth.

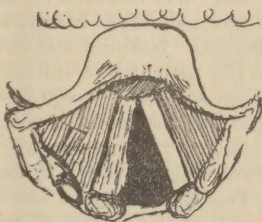


FIG. IV.

The patient was next seen on August 20th. She had had a slight hæmorrhage from the throat ten days after returning home.

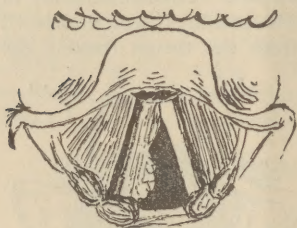


FIG. V.

She had had a throbbing feeling in the throat occasionally; and when she got tired she "felt it" in her throat. Examination then showed the right cord still thickened and on the free edge of the cord in the posterior third a small growth (about the size of that in

Fig. V). This was touched twice with trichloracetic acid without effect. On September 2d it was thoroughly removed with the forceps.

Fig. IV gives some idea of the appearance of the larynx after this last operation. The small projection on the right cord was the seat of the recurrence and had the appearance of a fibrous thickening of the cord.

Fig. V shows how the larynx appeared when the patient was last seen on January 30, 1893. The voice is now somewhat husky, not so clear as it was in September. Nothing was done to the growth at this time as the patient was suffering from a cold. This recurrence will be removed later. Dr. A. K. Stone made a careful microscopic examination of the growth and reports, "a papillomatous growth, quite distinct from the mucous tissue in which it is implanted."

Our knowledge of the etiology of these neoplasms is still very incomplete and unsatisfactory. Some of the generally accepted predisposing causes are: catarrh of the larynx, over-exertion of the voice or its use under unfavorable conditions; the exanthemata, particularly measles; whooping-cough, diphtheria, and by

some the syphilitic and tubercular dyscrasiæ. Fauvel "reports several instances of warty growths in the larynx, occurring in individuals who were subject to what he calls the 'papillomatous diathesis' as shown by the existence of warty growths in other portions of the body." In Case I of this series no cause was discovered. Case II had scarlet fever nine years before the appearance of the growth, measles six years, and German measles two years before. From the interval of time which elapsed before the appearance of the growth it hardly seems probable that there could be any causative relation between any of these diseases and the papilloma. Nor is it easy in Case III to trace any connection between the neoplasm and an attack of diphtheria eight years previous. In this case we might say there was the "papillomatous diathesis" which, of course, explains nothing. Diphtheria was probably the exciting cause in Case IV; and in Case V the growth apparently originated in a severe cold and was started into activity later by the attack of whooping-cough.

The only unusual symptom shown by any of the cases was hæmorrhage in Case V. This is an exceedingly rare symptom and Bosworth says a severe hæmorrhage would point rather to malignancy in the growth. Another fact which might excite a suspicion of malignancy in this case is that the recurrence has taken place in the posterior portion of the cord, a much less frequent seat for these growths than the anterior portion of the larynx. It may be of interest to notice in this connection that the patient's mother died of cancer. It is interesting also in this case that the growth had existed for so many years and attained so great size without being diagnosed or apparently even suspected. The symptoms which led the patient to seek advice were principally the hæmorrhage and cough

which she was inclined to attribute to some lung trouble.

In the removal of these growths various forceps, snares, guillotines, curettes and cutting instruments have been used and every laryngologist has his favorite instrument. Doubtless, however, the instruments most generally used and which will be found to be best adapted to the majority of cases are Mackenzie's rectangular and Schrötter's tube forceps. My personal preference is for the latter instrument as it offers very little to obstruct the field of vision and is capable of very accurate manipulation. The objection of some writers that it is too delicate of construction for all growths appears to me not valid. To my mind these forceps grasp with all the force I should care to exert in so delicate an organ as the larynx.

The marked tendency which papilloma of the larynx has to recur is well illustrated in four of the above cases. In Cases II and V the recurrence was doubtless due to the fact that the growth had not been thoroughly extirpated. In Case III, however, and in the first instance in Case IV the new growth occurring in a different part of the larynx from the first could hardly be ascribed to this cause. The second recurrence in Case IV might be due to insufficient extirpation although there was not the slightest evidence of any remnant of the growth after the last operation. The fact of a reappearance of papilloma in this case nine years after the first growth was removed, shows that it would not be safe to prophesy future immunity for any of the other cases.

What is the best method of treating these growths? Is it possible to prevent their recurrence? In the first place it must be borne in mind that these are benign growths, only dangerous as they offer an obstruction to respiration by their increasing size, which is in adults

always sufficiently slow to give ample warning of danger. It must also be remembered that their natural tendency has been shown to be, sooner or later to disappear. Our first aim therefore must be to choose some method of operation which cannot injure in any way the delicate structures of the larynx. Such a method, it seems to me, is offered by the use of laryngeal forceps, especially Schrötter's tube forceps. In operating, accuracy in bringing the instrument quickly to the desired spot in the larynx is an all important factor. Undue haste to grasp the growth and remove it must be carefully avoided. The operator must see distinctly what he is about to grasp with his forceps. To quote Dr. Hooper: "The peculiar nature of these benign papillary growths and the delicacy of the laryngeal structures demand that, when surgical interference is necessary, it should be conducted with the greatest prudence and patience."

The application of one of the various caustics to the part from which the growth has been torn seems to be either useless or harmful and sometimes even dangerous to life. In some cases the use of caustics or the galvano-cautery has only stimulated the growth, while on the other hand, cases are on record where from the use of powerful caustics adhesions have been formed which have permanently impaired the voice.

In treatment, therefore, it is well to avoid agents, such as powerful caustics, which may do injury to the normal structures of the larynx and simply to remove the growth as thoroughly as possible by other means whenever it becomes of sufficient size to interfere with phonation or respiration, bearing in mind its benign character and its tendency to ultimate atrophy and disappearance.

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